

Application Serial No. 10/724,026

**REMARKS**

Applicant thanks the Examiner for the interview conducted with Applicant's counsel on October 21, 2005, relating to the merits of specific automation structure and methods steps obtaining new results over purely manual testing. Applicant replies to the Office Action mailed August 4, 2005, within the shortened statutory period for reply. Claims 1-27 are pending in this application and claims 1-27 stand rejected. Applicant amends claims 1, 3, 6, 8, 9, 11, 12, 13, 18, 22, 25, and 27 and adds new claims 28-32. No new matter is added by these amendments, which are supported in the originally filed patent application. Applicant requests reconsideration of pending claims 1-27 and consideration of new claims 28-32 (32 total claims, 4 independent).

**Objections**

As a preliminary matter, the drawings are objected to for lack of reference signs for controller 330 and alarm 350. As agreed upon in the interview, Figure 3 shows reference numbers 330 and 350. Accordingly, Applicant request withdrawal of this objection.

**Claims Rejected under 35 U.S.C. § 112**

Claim 27 stands rejected under 35 U.S.C. § 112, first paragraph, for lack of enablement. Applicant notes that paragraph 31 explains that "the range of movement of the actuator is set at a fixed value, and the force that creates that movement is measured over time." Nevertheless, in the interest of clarification, Applicant amends claim 27 to recite a controller "configured to measure the force required to move said actuation component a set distance, over multiple actuations." Accordingly, Applicant requests withdrawal of the rejection of amended claim 27.

Claims 6, 8-9, 11-12, and 19-20 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Specifically, claims 6, 9, and 19 stand rejected for lack of antecedent bases. Applicant amends claims 6, 9 and, 13 as set forth above to provide the proper antecedent bases.

Claim 8 stands rejected for indefiniteness as to what is meant by "equipment." Applicant amends claim 8 to recite specific equipment. Amended claim 8 recites "alarming on a malfunction of at least one of said hand actuated pump, said pump actuation component, said continuous source, and a sensor."

Claim 11 stands rejected for failure to define what is meant by "infinite." As agreed upon in the interview, paragraph 21 explains that "the fluid dispensed by pump 320 is re-

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circulated to supply tank 313 [and] may thus act as an infinite reservoir." Applicant amends independent claim 11 as set forth above to expressly recite "recirculating the liquid."

Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 6, 8-9, 11, and 19. Similarly, as claims 12 and 20 depend respectively from claims 11 and 19, these claims are allowable for the same reasons, in addition to their own respective features.

### **Claims Rejected under 35 U.S.C. § 103**

Claims 1-27 stand rejected under 35 U.S.C. § 103 as being unpatentable as obvious, not over any prior art reference, but over Applicant's Statements in the Background of the Invention section of the specification. Applicant respectfully traverses this rejection.

Paragraph 3 of Applicant's specification merely recognizes the imprecision and disadvantages of purely manual testing. As recognized by the Examiner, there is no specific description of any pump testing, manual or automatic, in that section. Mere identification of the problem to be solved by an invention can hardly be said to render obvious any given structure or method for solving that problem. Accordingly, nothing in Applicant's Statements renders the specific structure or steps of the present claims obvious. Furthermore, Applicant notes that the prior art references made of record but not relied upon in the office action in no way relate to manual pumps, nor do they teach or suggest all of the elements of any one of the present claims.

Claims 1, 4, 5, 7, 8, 10-14, 17, 21, and 23-27 stand rejected as obvious, not over any prior art references, but rather over the asserted rationale that it would have been obvious to test a hand pump prior to sale and that any such test would require a source of fluid, container for catching the fluid, and an automatic means to replace a manual activity to produce the same result. The Examiner cites MPEP § 2144.04 (III) as support for the assertion that providing automatic means to replace a manual activity is obvious. However, In re Venner, 262 F.2d 91, 95 (C.C.P.A. 1958), of that section, addresses only those automation means producing the same result as a manual activity. Furthermore, In re Venner relies on In re Rupert E. Rundell, 48 F.2d 958 (C.C.P.A. 1931), in which the automation means claimed was found deficient because the claims did not recite any particular automatic mechanism or structure. These cases do not stand for the proposition

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that one cannot claim automation of a manual activity through recitation of specific structure for the automation or new results obtained by specific method steps. Moreover, two of the very prior art references made of record in the office action disprove this assertion as they are issued patents directed towards automation of manual testing of keyboards.

With reference now to amended independent claims 1, 11, 13 and 25, manual testing of hand actuated pumps does not render obvious the specific structure, method steps, and new results recited in those claims. For example, amended independent claim 1 recites the specific method steps and new results of "controlling a pump actuation component to repeatedly actuate the hand actuated pump according to a preprogrammed testing cycle [and] quantifying and recording performance information substantially simultaneous to said controlling."

Amended independent claim 11 recites the specific method steps of "recirculating the liquid from said collecting through the reservoir and the hand actuated pump; mechanically and repetitively actuating the hand actuated pump according to a preprogrammed testing cycle; and measuring and recording real-time performance information related to said actuating of the hand actuated pump."

Amended independent claim 13 recites the specific structure of "a controller configured to automatically control said at least one pump actuation component, wherein said controller is configured to repetitively actuate the hand actuated pump according to a preprogrammed testing cycle; and a sensor configured to quantify and record performance information associated with said preprogrammed testing cycle."

Amended independent claim 25 recites specific structure including a controller "configured to cause said at least one pump actuation component to repetitively actuate the hand actuated pump according to a preprogrammed testing cycle to cause the hand actuated pump to draw a fluid from a supply tank and to expel material into a collection tank."

The specific structure, method steps, and new results recited in amended independent claims 1, 11, 13, and 25 are not obvious over manual testing or the asserted rationale, especially absent a single prior art reference related to the testing of hand actuated pumps, let alone related to the specific structure and method steps recited in

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those claims. Whereas claims 2-10, 12, 14-24, and 26-27 variously depend from amended independent claims 1, 11, 13, and 25, these claims are also not obvious for at least the same reasons as set forth above, in addition to their own respective features.

For example, quantification of various performance parameters as recited in dependent claims 3, 4, 5, 18, 19, and 22 is a new result where manual testing is not amenable to such quantification. Furthermore, specific exemplary input or output parameters such as the angle of actuation (claims 3, 18, 22), resistance to actuation (claim 4), amount of drip between test cycles (claim 4, 18), force of the spray (claim 5, 19), actuation force (claim 5, 19), and completeness of actuation (claim 18) are not amenable to manual quantification, nor are such merely a result of mere mechanical duplication of manual actuation.

The Examiner, under similar rationale, asserts that it would have been obvious to adjust actuation component orientation to adapt to test a variety of hand pumps. However, accommodating a variety of hand pumps is different than varying a variety of parameters within a testing cycle. Varying certain actuation parameters during a testing cycle, including, for example, varying "the angle of actuation" (claims 9, 16, 22), "the force of the actuation, the rate of actuation, and the completeness of the actuation" (claims 9, 22), and "variably actuating the hand activated pump during at least one of a single pump actuation and a cycle of repeated pump actuations" (claim 12), are steps that are not amenable to manual testing, nor a result of mere mechanical duplication of manual actuation.

Accordingly, Applicant respectfully requests withdrawal of the rejection of dependent claims 3, 4, 5, 9, 12, 16, 18, 19, and 22 on these additional independent grounds.

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**CONCLUSION**

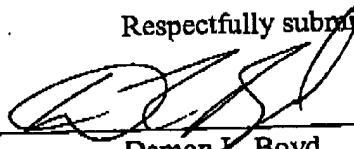
In view of the foregoing, all of the currently pending claims 1-32 (4 independent claims, 32 total claims) are in condition for allowance. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned.

Applicants authorize and respectfully request that any fees due be charged to Deposit Account No. 19-2814. This statement does NOT authorize charge of the issue fee.

Respectfully submitted,

Date 2 November 2005

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